

WHAT IS CLAIMED IS:

1. An additive dispensing system for a washing machine, the washing machine including a tub for holding wash liquid and a basket for holding articles to be washed, said additive dispensing system comprising:

a top cover;

a reservoir removably coupled to said top cover;

a water valve coupled to said reservoir; and

a controller coupled to said water valve, said controller configured to control said water valve to introduce water into said reservoir to dilute the additive and initiate delivery of the diluted additive to the washer at a predetermined time during a wash cycle.

2. An additive dispensing system in accordance with Claim 1, further comprising a conduit coupled to said reservoir for delivery of said additive to the washing machine between the basket and the tub.

3. An additive dispensing system in accordance with Claim 2, wherein said conduit comprises a siphon tube.

4. An additive dispensing system in accordance with Claim 2 wherein said reservoir includes a removable cover coupled to said top cover, and said conduit comprises a siphon tube coupled to said removable cover.

5. An additive dispensing system in accordance with Claim 1, wherein said reservoir includes a overflow port.

6. An additive dispensing system in accordance with Claim 1, wherein said top cover includes an opening therethrough, said opening in fluid communication with said reservoir for introducing the additive into said reservoir.

7. A washing machine comprising:

a tub for holding wash liquid;

a basket for holding articles to be washed; and

an additive dispensing system comprising:

a top cover;

a reservoir removably coupled to said top cover;

a water valve coupled to said reservoir; and

a controller coupled to said water valve, said controller configured to control said water valve to introduce water into said reservoir to dilute an additive and initiate delivery of the diluted additive to the washer at a predetermined time during a wash cycle.

8. A washing machine in accordance with Claim 7, further comprising a conduit coupled to said reservoir for delivery of said additive to the washing machine between the basket and the tub.

9. A washing machine in accordance with Claim 8, wherein said conduit comprises a siphon tube.

10. A washing machine in accordance with Claim 8 wherein said reservoir includes a removable cover coupled to said top cover, and said conduit comprises a siphon tube coupled to said removable cover.

11. A washing machine in accordance with Claim 7, wherein said reservoir includes a overflow port.

12. A washing machine in accordance with Claim 7, wherein said top cover includes an opening therethrough, said opening in fluid communication with said reservoir for introducing the additive into said reservoir.

13. A method for dispensing an additive from a reservoir in a washing machine, the washing machine including a tub, a basket, a memory, and a controller accessing the memory and controlling a water valve, said method comprising:

determining a total wash cycle time;

determining an additive dispense time based on the total wash cycle time;

activating a water valve to dilute the additive when the additive dispense time is reached; and

dispensing the diluted additive.

14. The method of Claim 13, wherein determining a total wash cycle time comprises retrieving a total wash cycle time from memory based on a selected wash cycle.

15. The method of Claim 14, wherein retrieving a total wash cycle time comprises retrieving a total wash cycle time from a look-up table in the memory.

16. The method of Claim 13, wherein determining a total wash cycle time comprises accepting a user specified wash time.

17. The method of Claim 13, wherein determining an additive dispense time comprises setting the additive dispense time at a set percentage of the total wash cycle time.

18. The method of Claim 17, wherein the additive dispense time is set at an elapsed time of about 2/3 of the total wash cycle time.

19. The method of Claim 13, wherein activating a water valve to dilute the additive further comprises raising the level of the diluted additive in the reservoir to start a siphoning action.

20. The method of Claim 13, wherein dispensing the diluted additive comprises dispensing the diluted additive when the basket is stationary.

21. The method of Claim 13, wherein dispensing the diluted additive comprises introducing the diluted additive into an annulus between the tub and the basket.

22. The method of Claim 13, wherein determining the total wash cycle time further comprises saving the determined total wash cycle time in memory.

23. The method of Claim 22, wherein a new total wash cycle is saved when the user changes the wash cycle.

24. The method of Claim 23, wherein a new additive dispense time is determined when a new total wash cycle time is saved.